

Administrative Agreement between
the Department of Natural Resources of Canada and
the Ministère des Ressources naturelles du Québec

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**Financial assistance program for owners of woodlots
who were affected by the January 1998 ice storm
and whose primary source of income
is not derived from forestry**

Annual Report
1999-2000

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Introduction

On August 11, 1999, an administrative agreement was signed in Québec City by the Natural Resources Departments of Canada and Québec. The Agreement established the administrative parameters for a Financial assistance program for the owners of woodlots affected by the January 1998 ice storm whose primary source of income was not derived from forestry.

This document is the first annual report on the activities carried out under the Agreement, prepared pursuant to article 6. Section 1 describes the main events that preceded the signing of the Agreement, and Section 2 presents the Agreement itself and its administrative procedure. Finally, Section 3 summarizes the actions carried out during the first year of implementation (1999-2000) and section 4 concludes with some recommendations.



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1. Overview of the pre-agreement situation

1.1 January 1998 ice storm

The ice storm that struck southern Québec on January 5 to 9, 1998 was exceptional in its scope and duration. In Montréal, 100 mm of freezing rain and hail, mixed with light snow, fell during the storm, over twice the amount recorded during the last great ice storm of 1961. In all, freezing rain fell for 80 hours, compared to the total annual average of roughly 45 to 65 hours¹.

The effects of the ice storm on the population were considerable since around 900,000 households in southern Québec lost their power supply, some for as long as a month. Many people were forced to leave their homes, and many businesses had to close down. The extended precipitation also had a considerable effect on forests and forestry.

1.2 Damage to forests

The freezing rain damaged 1.8 million hectares of wooded land in Québec alone. The forest stands concerned suffered varying degrees of damage, as shown on the map in Appendix 1. An aerial survey carried out shortly after the storm revealed that 32% of the forest stands were severely damaged, with the most severe damage sustained by maple stands, which are predominant in southern Québec².

The most affected regions were the Bois-Francs, Chaudière, Estrie, Laurentides, Montérégie and Outaouais regions. The Estrie (183,000 ha), Montérégie (182,000 ha) and Centre-du-Québec (102,000 ha) regions sustained the most widespread damage³. For example, the forest inventory carried out in the spring of 1998 showed that in the Montérégie region, heavily damaged trees represented almost 40% of standing timber volumes.

1.3 Woodlot owners affected

Most of the forest land affected was owned by around 30,000 private owners, who were classified according to their principal occupation. Among the private owners:

- 1) around 10,000 were agricultural producers who also owned forest land;
- 2) around 500 were woodlot owners whose primary source of income was derived from forestry;
- 3) around 19,500 were owners whose primary source of income was derived from neither forestry nor farming.

1.4 Needs

In the short term, the focus was on safety and clean-up operations. Apart from clearing away fallen branches from roads, ensuring the safety of the public and freeing pipeline systems in maple stands, it was considered preferable to wait before carrying out any kind of forestry work in damaged woodlots. The by-word was “prudence and patience” at the Ministère des Ressources naturelles du Québec (MRN) and this was taken up by most players in the forest sector.

Other short-term and long-term needs were also identified. They included:

- * assessing damaged stands more accurately;
- * recovering fallen timber following an order of priority based on tree species, without flooding a market where supply already exceeded demand;
- * carrying out the work needed to prevent further damage to woodlots;
- * restoring the productivity of heavily damaged stands.

1. Environment Canada, 1998.

2. Boulet *et al.* 2000.

3. Ordre des ingénieurs forestiers du Québec, 1998.

1.5 Special assistance programs for woodlot owners

Under the Disaster Financial Assistance Arrangements (DFAA) administered by Emergency Preparedness Canada, Canada makes funding available to support measures taken by provincial and territorial governments following events such as the 1998 ice storm or the 1996 Saguenay floods.

The gouvernement du Québec received funding under the Arrangement that allowed it to provide services to agricultural producers who own woodlots and woodlot owners whose primary source of income was derived from forestry (known as PSIs, for primary source of income). Pursuant to the DFAA, the federal government financed 90% of the funding allocated to these first two programs (Table 1).

To be fair to the remaining 19,500 woodlot owners whose primary source of income was not derived from forestry (known as NPSI, for not primary source of income) but who were also affected by the ice storm, the MRN and Natural Resources Canada (NRCan) agreed to set up a third program offering similar assistance. This report deals with this third program, funded in equal parts by the federal and provincial governments (Table 1).

Table 1: Ice storm programs

Target clientele	Program applicable	% of expenditures reimbursed by federal government
Woodlot owners who are agricultural producers	Agricultural PSI *	90%
Woodlot owners whose primary source of income is derived from forestry	Forestry PSI *	90%
Woodlot owners whose primary source of income is not derived from forestry	Forestry NPSI **	50%

* PSI: primary source of income

** NPSI: not primary source of income

2. Agreement on NPSI program and administration

2.1 Objective of the agreement

The objective of the NPSI program is to provide assistance to owners of woodlots damaged by the ice storm of January 5 to 9, 1998 who were not eligible for assistance under the DFAA because their primary source of income is not derived from forestry.

The assistance is essentially intended to develop tools to increase knowledge about the forest, to provide technical advice to the woodlot owners concerned, and to promote the implementation of adapted forest management work to restore damaged forest stands.

The 1998 ice storm devastated regions of Québec of special interest in terms of biodiversity. The various ice storm programs (including the NPSI program) include an innovative approach to promote the protection of exceptional forest ecosystems, species of fauna and flora designated or likely to be designated as threatened or vulnerable, and specific wildlife habitats defined in the Regulation respecting wildlife habitats.

To be eligible for the NPSI program, the owner of a damaged woodlot had to meet all the following conditions:

- a) the owner must own at least one woodlot comprising a single parcel of at least 4 hectares

in size; other areas used for timber or maple syrup production, if they meet the requirements specified in b and c, are also eligible;

- b) the woodlot must have been damaged during the ice storm of January 5 to 9, 1998;
- c) the woodlot must be located within the territory of a regional county municipality (RCM) listed in Appendix 2;
- d) the woodlots must belong to an owner whose primary source of income is not derived from forestry and agricultural activities.

2.2 Financial resources

When the agreement was signed in August 1999, \$34 million were set aside for the NPSI program, funded in equal parts by the federal and provincial governments.

The program was implemented over a year after the ice storm hit, and the first deadline for registration, originally set at January 31, 1999, was pushed back to June 1 of the same year. The period covered by the program, during which all activities must be approved, runs until March 31, 2002.

Table 2 shows the annual budgetary allocations of the program when the agreement was signed.

Table 2: Annual allocation of program funding at signing of the NRCan-MRN agreement

Program Element	Fiscal Year									Total		
	1999-2000			2000-2001			2001-2002					
	Quebec	Canada	Total	Quebec	Canada	Total	Quebec	Canada	Total	Quebec	Canada	Total
1. Activity	5.9	5.9	11.8	5.9	5.9	11.8	2.95	2.95	5.9	14.75	14.75	29.5
1.1 Advice and training												
1.2 Support for implementation												
1.3 Studies and knowledge												
1.4 Miscellaneous												
2. Administration by agencies	0.9	0.9	1.8	0.9	0.9	1.8	0.45	0.45	0.9	2.25	2.25	4.5
Total	6.8	6.8	13.6	6.8	6.8	13.6	3.4	3.4	6.8	17.0	17.0	34.0

2.3 Management and implementation structure

A joint NRCan-MRN Administration Committee was set up to monitor the administrative agreement for the NPSI program. Two representatives of each department were officially appointed by the signing deputy ministers. The committee meets at least three times every year to approve the annual program, monitor the progress of approved activities, and report on activities completed by the end of the fiscal year.

The MRN is responsible for coordinating the NPSI program and the two other programs. The ministère de l'Agriculture, des Pêcheries et de l'Alimentation (MAPAQ) also helps administer and manage the program for agricultural producers.

The MRN has delegated responsibility for applying government measures to the six regional agencies for private forest development covering the areas affected (Figure 1). The delegation of responsibility to the existing agencies avoided the need to set up additional structures to implement the program.

In June and July, 1999, the MRN and the MAPAQ signed a memorandum of agreement with each of the six regional agencies concerned, setting out the obligations of each party. Each agency is made up of representatives from the MRN, the forest industry, woodlot owners and municipalities.

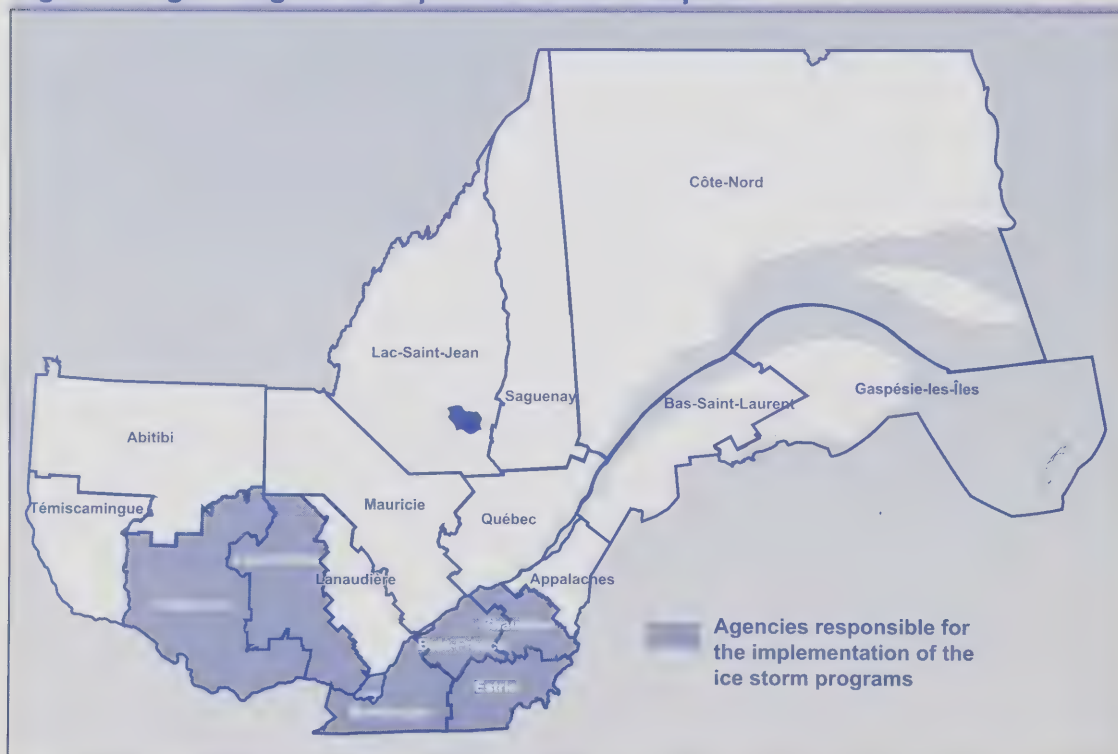
The agencies train and accredit forest engineers, who then implement the ice storm programs. The forest engineers intervene directly with the target clientele, namely the woodlot owners. Both the agencies and the engineers offer training and information sessions for woodlot owners.

At all levels in the process, administrative and technical conformity is verified to ensure that the services provided are of high quality, and that public funds are being properly applied.

The MRN has also set up various committees to ensure that the program operates smoothly and to oversee its implementation and, where necessary, improvement.

The program interpretation committee, made up of MRN and MAPAQ representatives under the direction of the MRN, is responsible for interpreting

Figure 1: Regional agencies for private forest development



all matters pertaining to program application. The committee is assisted by the program delivery committee and the technical committee.

The program delivery committee, made up of representatives from the MRN and the regional agencies, is responsible for making proposals concerning program delivery and program content. The committee met for the first time in the fall of 1999, and its recommendations have triggered a process to improve ice storm programs.

A technical committee, made up of the MRN, forest engineers and agency representatives, was established immediately after the ice storm. It was responsible for preparing a list of recommendations concerning the work to be performed in the affected stands, and later concerning the application of the various programs. The committee met five times between January 22 and November 15, 1999.

The organization chart (Figure 2) shows the program implementation structure.

2.4 Activities covered and services available

The program comprises two elements.

Program Element #1 covers all the activities and services offered under the program, while Program Element #2 covers the financial assistance granted to the six regional agencies for private forest development to allow them to administer the program.

PROGRAM ELEMENT #1

Program Element #1 covers four types of activities:

- A) advice, information and training;
- B) support for the performance of forest management work;
- C) studies and knowledge development;
- D) miscellaneous.

A) ADVICE, INFORMATION AND TRAINING

The services offered under this heading include:

- * the training of forest engineers and the development of the technical expertise required to implement and administer the program;
- * the development and implementation of specific forest operations in order to ensure the safety of workers and individuals moving about in the forest and to restore the forests to a productive state;
- * information sessions for woodlot owners on the impacts of the ice storm on the forest, recommended silvicultural operations and other related issues;
- * training sessions for woodlot owners on the prevention of work accidents in particularly dangerous forest conditions and on wood processing in order to optimize its market value.

Figure 2: Program implementation structure



B) SUPPORT FOR THE IMPLEMENTATION OF FOREST DEVELOPMENT ACTIVITIES

All activities intended to support the performance of management work come under this heading, including:

- * consulting services, which include a meeting with each eligible woodlot owner, an evaluation of the extent of the damage and practical recommendations regarding restoration. More over, for heavily damaged woodlots (classified as severe or very severe), a more comprehensive forest inventory is offered in order to identify the nature of the silvicultural operations to be carried out and the volume of timber to be recovered;
- * for heavily damaged woodlots, technical and administrative assistance is offered to identify the trees to be harvested (tree marking) in order to optimize the value of the products resulting from the recovery of wood and restoration of the forest;
- * in heavily damaged woodlots, financial assistance may be granted for site restoration and restoring forest production; the assistance granted takes into account the difficult and dangerous harvesting conditions created by ice-damaged trees. Initially, the rates were fixed at \$275 per hectare for partial cutting, and \$150 per hectare for clear-cutting for timber recovery purposes.

C) STUDIES AND KNOWLEDGE DEVELOPMENT

This heading mainly covers activities relating to biodiversity:

- * various activities related to the conservation of biodiversity, including knowledge gathering, identification of protection measures related with the impact of the ice storm and specific consulting services on-site to mitigate the impact of planned operations on forest ecosystems, including exceptional forest ecosystems, species at risk and critical wildlife habitat.

In short, the programs rely on owner cooperation to safeguard wildlife species, habitats and ecosystems placed at risk by the combined effects of the ice storm and timber recovery operations. At a practical level, once a forest engineer has verified whether the woodlot concerned contains a particular element of biodiversity, the MRN, in col-

laboration with the ministère de l'Environnement du Québec (MEQ) and the Société de la faune et des parcs du Québec (FAPAQ), specifies the protection measures that must be included in the timber recovery plan and complied with during the performance of the work.

The agencies are responsible for notifying the MRN when a work report is filed in a case where the presence of particular elements of biodiversity has been confirmed, in order to allow the work to be monitored.

D) MISCELLANEOUS

This heading brings together all program follow-up and evaluation activities, including the verification of operations by the regional agencies.

The verification of operations has three objectives:

- * to ensure that the technical services and silvicultural operations carried out comply with program requirements, as set out in government orders and memorandums of agreement;
- * to ensure that all the services connected with the activities carried out are charged at a fixed tariff;
- * to ensure that the services provided by forest engineers are sufficient and follow the same pattern.

The agencies are responsible for ensuring that the services provided are of high quality and that proper use is made of public funds. They must also verify the administrative and technical aspects of at least 10% of the services provided by the forest engineers involved in the programs, for each activity provided for in the memorandums of agreement and for each forest engineer.

This heading also covers any other complementary activities that are developed as required and that are considered by the Administration Committee to meet program objectives.

PROGRAM ELEMENT # 2

Program Element #2 covers the financial assistance granted to the regional agencies for private forest development to allow them to administer the program. The assistance must not exceed 15% of the amount paid to the agencies.

3. Work completed, 1999-2000

This section of the report presents the annual statement for fiscal year 1999-2000 of the NRCan-MRN administrative agreement for the NPSI ice storm program. The statement includes the expenditure incurred between January 8, 1999 and the signing of the agreement. The discussion refers to Table 4, which compares the budgeted expenditures with the work completed by program element for 1999-2000, and to Table 5, which breaks down expenditure by agency.

When the agreement setting out the annual program costs was signed, total expenditure was expected to reach \$5.18 million. Overall, actual expenditure for 1999-2000 amounted to \$2.18 million, i.e. \$1.4 million for each level of government (Table 3), amounting to 54% of the budgeted total. Table 3 shows that the percentage of work completed varies greatly, depending on the type of activity concerned.

Table 5 shows that the most active agencies under the ice storm program are the Estrie and Montérégie agencies, two of the regions where the ice storm caused the most severe damage.

The following sections discuss the implementation of the program by type of activity.

**Table 3: Expenditures under
NPSI program for
fiscal year 1999-2000**

Total expenditures for 1999-2000 for the NPSI program \$2,806,805.03	
Apportionment of expenditures by government	
Federal government	Provincial government
\$1,403,402.52	\$1,403,402.52

3.1 Program Element #1

3.1.1 Advice, information and training

This heading essentially covers training and development activities. Training activities were mainly organized by the agencies, both for woodlot owners and forest engineers. Training content varied, depending on the target clientele. During the first year of implementation, the following main subjects were dealt with:

Training provided to forest engineers:

- * damage assessment;
- * silvicultural operations in stands damaged by the ice storm;
- * advice to woodlot owners;
- * software (inventory data compilation form).

Training provided to woodlot owners:

- * chain saw sharpening;
- * tree cutting and safety concerns for trees bent or broken by ice;
- * timber logging and cutting to length;
- * timber measuring and processing;
- * timber marketing;
- * tax and accounting issues for timber lost during a natural disaster.

Expenditure for this category of activities accounted for 80% of the budgeted amount (Table 4).

With regard to activities designed to develop technical expertise, most of the expenditures were incurred by the MRN, mainly in connection with forest inventory and research activities, totalling 94% of the budgeted amount. The main focus was on surveying the state of the forest following the ice storm, and on designing forest management techniques to ensure that forests were restored and that people could move around safely in the forest.

The Direction de la conservation des forêts at the MRN produced a handbook on forest management for stands affected by the January 1998 ice storm. The handbook was designed for use mainly by forest engineers working in the territory of the agencies concerned, and it became an important reference work for forest restoration.

3.1.2 *Support for the implementation of forest development activities*

This heading covers all activities to support the implementation of forest development activities. In all, 3,220 case files were opened and billed during this period, well below the expected total of 8,000 files.

Table 4 shows that this is the category of expenditure with the greatest discrepancy between budget and actual expenditure. The discrepancy is particularly great in the number of files opened, recovery plans prepared and operation reports filed. The expenditure linked to tree marking work, partial cutting and clear-cutting for recovery purposes was also well below expectations.

Nevertheless, the expenditure incurred to prepare summary damage assessments exceeded the budgeted amount (103%). This is a crucial stage in determining the eligibility of a given woodlot for work to salvage damaged timber. Only heavily damaged woodlots, i.e. woodlots that sustained severe and very severe damage, were eligible for assistance in performing this work.

As shown by the percentages of completed work shown in Table 4, the expenditure incurred for preparing recovery plans, marking trees and carrying out partial cutting and clear-cutting for recovery purposes represented only a fraction of

the budgeted amounts. The discrepancy can be explained in three ways. First, several woodlot owners were not eligible for financial assistance because of the classification of their woodlots. Second, some of the woodlot owners whose woodlots were eligible because of the severity of the damage sustained decided not to take advantage of the financial assistance available for restoration work because it did not cover the whole cost of the work. Third, since the memoranda of agreement between the six agencies and the MRN were not signed until the summer of 1999 and since assessment and restoration work did not really begin until then, the figures cover eight months of activity rather than a full twelve months.

The activity "Updating the forest management plan (FMP)" was not included in the 1999-2000 program options. However, this was one of the eligible activities and over \$8,000 was spent in this area. The fact that over 50% of a given property was severely damaged by the January 1998 ice storm entitled the owner to take advantage of the updating service; however, only a small number of eligible clients had taken advantage of this possibility by the report date.

In terms of total expenditure by agency territory, the Estrie and Montérégie agencies recorded the greatest expenditure, especially in connection with damage assessment and recovery plans (Table 5). Expenditure on partial cutting and clear-cutting varied greatly depending on the agency territory concerned, and also depending on types of stand and timber value. Most of the cutting work to salvage damaged timber took place in the Estrie, Bois-Francs and Chaudière regions (Table 6).

3.1.3 *Studies and knowledge development*

This heading covers various actions taken to maintain biodiversity as part of the ice storm programs. Before any work was undertaken to salvage damaged timber, the forest engineer concerned had to consult a data base to determine whether any particular elements of biodiversity were present on the woodlot concerned. To make this possible, it was necessary to update the database of the Centre de données du patrimoine naturel du Québec which is managed by the MEQ. This step represented 85.5% of the expenditure for this

Table 4: 1999-2000 budget and work completed

PROGRAM ELEMENT #1	Forecast (\$)	Expenditures (\$)	Percentage completed
1.1 Advice, training and information			
<i>Training</i>	\$37,085.00	\$29,670.63	80%
<i>Development</i>	\$331,494.00	\$313,249.49	94%
1.2 Support and implementation			
<i>Advisory services</i>			
File opening	\$200,000.00	\$92,595.13	46%
Damage assessment	\$800,000.00	\$825,199.03	103%
Recovery plans	\$525,000.00	\$214,755.54	41%
FMP updates	\$0.00	\$8,149.52	
Rapport d'exécution	\$325,375.00	\$36,221.94	11%
<i>Technical assistance</i>			
Tree marking	\$441,471.00	\$146,670.52	33%
<i>Forestry work</i>			
Partial cutting for recovery purposes	\$736,779.00	\$138,431.19	19%
Clear-cutting for recovery purposes	\$245,593.00	\$41,694.22	17%
1.3 Studies and knowledge development			
<i>Biodiversity</i>	\$308,710.00	\$275,872.04	89%
1.4 Miscellaneous			
<i>Monitoring and evaluation</i>	\$435,931.00	\$308,567.89	71%
<i>Verification</i>	\$163,513.00	\$44,075.72	27%
<i>Other activities</i>	\$68,556.00	\$66,851.99	98%
PROGRAM ELEMENT #2			
<i>Administration costs</i>	\$569,464.00	\$299,233.84	53%
TOTAL	\$5,188,971.00	\$2,841,238.69	55%
<i>Interest on investments ¹</i>		\$-34,433.66	
GRAND TOTAL	\$5,188,971.00	\$2,806,805.03	54%

1. Interest on investments from advances is deducted from the annual expenditures of the agencies (administrative costs).

Table 5: Expenditures for 1999-2000 fiscal year by agency territory and program element

	Bois-Francis	Chaudière	Estrie	Laurentides	Montréal	Outaouais	MRN	Total
PROGRAM ELEMENT #1								
1.1 Advice, training and information								
<i>Training</i>	\$2,708.84	\$0.00	\$17,868.46	\$0.00	\$9,093.33	\$0.00	\$0.00	\$29,670.63
<i>Development</i>	N/A	N/A	N/A	N/A	N/A	N/A	\$313,249.49	\$313,249.49
1.2 Support for implementation								
<i>Advisory services</i>								
File opening	\$9,805.88	\$11,847.58	\$29,532.67	\$5,492.44	\$31,516.85	\$4,399.71	N/A	\$92,595.13
Summary evaluation	\$90,294.63	\$106,156.57	\$279,867.33	\$57,845.90	\$250,327.25	\$40,707.35	N/A	\$825,199.03
Recovery plans	\$28,181.13	\$13,567.20	\$103,223.44	\$1,131.44	\$67,122.50	\$1,529.83	N/A	\$214,755.54
FMP updates	\$1,092.74	\$425.59	\$241.55	\$0.00	\$6,389.64	\$0.00	N/A	\$8,149.52
Work reports	\$4,858.08	\$6,679.50	\$22,883.07	\$0.00	\$1,801.29	\$0.00	N/A	\$36,221.94
<i>Technical assistance</i>								
Tree marking	\$16,471.58	\$15,344.34	\$53,774.19	\$0.00	\$60,459.27	\$621.14	N/A	\$146,670.52
<i>Forestry work</i>								
Partial cutting for recovery purposes	\$40,681.93	\$31,020.00	\$64,707.50	\$0.00	\$2,021.76	\$0.00	N/A	\$138,431.19
Clear-cutting for recovery purposes	\$15,669.22	\$3,795.00	\$22,230.00	\$0.00	\$0.00	\$0.00	N/A	\$41,694.22
1.3 Studies and knowledge development								
<i>Biodiversity</i>	N/A	N/A	N/A	N/A	N/A	N/A	\$275,872.04	\$275,872.04
1.4 Miscellaneous								
<i>Follow-up and evaluation</i>	N/A	N/A	N/A	N/A	N/A	N/A	\$308,567.89	\$308,567.89
<i>Verification</i>	\$5,766.36	\$2,534.31	\$17,545.92	\$222.44	\$16,101.67	\$1,905.02	N/A	\$44,075.72
<i>Other activities</i>	\$5,632.35	\$10,826.84	\$15,756.02	\$11,565.18	\$6,819.61	\$16,251.99	N/A	\$66,851.99
PROGRAM ELEMENT #2								
<i>Administration costs</i>	\$37,195.99	\$34,571.43	\$77,388.91	\$47,803.31	\$59,413.13	\$42,861.07	N/A	\$299,233.84
Total	\$258,358.73	\$236,768.36	\$705,019.06	\$124,060.71	\$511,066.30	\$108,276.11	\$897,689.42	\$2,841,238.69
<i>Interest on investments¹</i>	\$-8,790.67	\$0.00	\$-9,841.89	\$-1,492.82	\$-14,308.28	\$0.00	\$0.00	\$-34,433.66
GRAND TOTAL	\$249,568.06	\$236,768.36	\$695,177.17	\$122,567.89	\$496,758.02	\$108,276.11	\$897,689.42	\$2,806,805.03

1 Interest on investments from advances is deducted from the annual expenditure of the agencies (administrative costs).

Table 6: Number of files and area processed by activity and by agency territory

	Bois-Francis	Chaudière	Estrie	Laurentides	Montréal	Outaouais	Total
Support for implementation							
<i>Advisory services</i>							
File opening	341 files	412 files	1,027 files	191 files	1,096 files	153 files	3,220 files
<i>Technical assistance</i>							
Tree marking	143.2 ha	133.4 ha	467.5 ha	0 ha	528.9 ha	5.4 ha	1,253.1 ha
<i>Forestry</i>							
Partial cutting for recovery purposes	122.3 ha	112.8 ha	235.3 ha	0 ha	7.9 ha	0 ha	444.8 ha
Clear-cutting for recovery purposes	90.7 ha	25.3 ha	148.2 ha	0 ha	0 ha	0 ha	197.7 ha

activity. The costs associated with database updating were not eligible for federal assistance under the DFAA; 100% of the expenditure (\$235 980.00) was therefore accounted for under this agreement. The rest of the expenditure relates to the production of notices describing protection measures to protect various elements of biodiversity (12%) and the production of knowledge transfer tools in connection with specific elements of biodiversity (2%). In total, actual expenditure represented 89% of the budgeted expenditure.

The territories of the agencies affected by the January 1998 ice storm are among those containing the greatest concentration of specific elements of biodiversity. To this day, the presence of specific elements of biodiversity has been confirmed in roughly 15% of all case files.

In general, the work has shown the presence of a large number of wildlife habitats, several species of fauna and flora designated or likely to be designated as threatened or vulnerable, and a number of exceptional forest ecosystems. The application of protection measures should allow the species concerned and their habitats to be preserved.

For example, the Montérégie hills are home to many different threatened or vulnerable plant species. Protection perimeters are established once the precise location of the species has been identified by experts. The protection measures to be applied vary from non-intervention within a specific perimeter to reduced intervention (reduced cutting, work performed at a specific time).

Similarly, some animal habitats, such as white-tailed deer yards, require that a minimum level of softwood forest cover be maintained to provide protective cover for the species during the winter period.

It has become clear that taking specific elements into account when planning work to restore damaged woodland constitutes a major challenge for forest engineers and the woodlot owners concerned. During the last fiscal year, the MRN has begun to provide training for forest engineers to better prepare them for their meetings with woodlot owners. The training was provided during the summer of 2000.

The MRN intends to verify the above activities and monitor the actual effects of these measures in helping to preserve species and habitats.

3.1.4 *Miscellaneous*

This heading covers the monitoring and evaluation of the program and all the other activities agreed upon by the Administration Committee for the Agreement. During fiscal year 1999-2000, over \$300,000 was allocated to set up, organize and develop a computer system to manage and administer the program, a little less than the budgeted amount (71% of the budgeted amount).

The cost of auditing the operations by the agencies amounted to 27% of the budgeted amount; it was spent on auditing the activities of forest engineers and the work performed in the field. This represented 2.99% of the total amounts paid to forest engineers and woodlot owners, below the threshold of 5% (Table 7). Given that the activities related to advisory services, technical assistance and timber recovery came in well under budget, it is understandable that less was spent on auditing those activities.

During the first year of application of the programs, the agencies performed verifications by selecting a random sample of case files. Most of the agencies attained the objective of checking 10% of files during the first fiscal year. In most cases, the files checked were found to comply with the expectations of the programs and the work performed was found to be of high quality. In the cases where the activities were found not to comply, a report was sent to the forest engineers concerned setting out the reasons for non-conformity, and they then corrected the faulty work.

From a technical point of view, it is important to note that the standards for the ice storm programs changed during the first year of application. Both the agencies and the MRN provided technical support for the forest engineers in the course of various activities, going on-site with the engineers in order to make adjustments to the work performed or specify certain points.

At the administrative level, all supporting documents presented at the billing stage are systematically audited by the agencies. This way, over 10% of all case files are audited.

**Table 7: Administration and verification costs-
fiscal year 1999-2000**

Total agency expenditure	\$1,909,115.61	
Amounts paid to forest engineers and to woodlot owners	\$1,503,717.09	
Administration costs	\$299,233.84	
Interest on investments	\$-34,433.66	
Adjusted administrative costs ¹	\$264,800.18	13.87%
Verification ²	\$44,900.06	2.99%

1. The percentage of adjusted administrative costs is calculated on the basis of total agency expenditure.

2. The percentage of verification costs is based on the amounts paid to forest engineers and woodlot owners.

The heading "Other activities" covers mainly the expenditures incurred by mailing program announcements and registration forms to woodlot owners. The total represents 98% of the budgeted amount.

3.2 Program Element #2

This heading covers the financial assistance paid to the agencies to administer the program. It sets out administration costs and the interest earned on investment.

3.2.1 Administration costs

The actual administration costs represent 53% of the amount budgeted. As mentioned above, the ice storm programs only began to be fully applied following the signing of the memoranda of agreement by the agencies and the MRN, meaning that the actual period of activities was shorter than the fiscal year. As a result, the administration costs were well below the budgeted costs.

The administration costs for fiscal year 1999-2000 amount to 13.87% of agency expenditure, below the 15% threshold (Table 7). It should be noted that the percentage of administrative costs is calculated taking into account the interest earned on investment.

3.2.2 Interest from investments

At the beginning of each fiscal year, the agencies forecast their expected expenditure. The memoranda of agreement signed by the MRN and the agencies stipulate that the MRN will advance 50% of budgeted expenditure to the agencies, and also that the interest earned on investment of the advances must be deducted from the administrative costs paid to the agencies for the application of the programs. Table 5 shows the interest earned on investment, by agency territory. Table 7 shows the adjustments made to administrative costs when calculating the percentage of the administration costs of each agency.

4. Observations and recommendations

The NPSI program, like the two other special financial assistance programs for the owners of woodlots damaged by the January 1998 ice storm, had as its main objective to help the woodlot owners concerned deal with this major natural disaster by preserving and restoring existing woodland.

Overall, the first year of application of the NPSI program generated expenditure of only \$2.81 million, i.e. 54% of the budgeted amount. As discussed in the preceding section, the discrepancy results from a number of factors. In particular, it became clear that the activities provided for did not allow damaged woodlands to be completely restored. Consequently, the MRN consulted the main stakeholders, namely the agencies and the representatives of the woodlot owners, in order to identify the ways in which the programs could be improved. The main recommendations made, with the support of the program delivery committee and the technical committee, are as follows:

- * new activities should be established to restore woodland (land preparation, reforestation, restoration of young stands, forest roads, forest monitoring);
- * the rate for partial cutting for recovery purposes should be raised from \$275/hectare to \$485/hectare (retroactively);
- * owners should receive a GST and QST refund on the assistance received to perform forestry work;
- * a new deadline for registration should be set.

Discussions were begun with Emergency Preparedness Canada and NRCan to assess the relevance and possibility of amending the ice storm programs to respond to the needs expressed. Since both agencies were receptive to the idea, the recommendations led to the adoption of a new government order, Order 543-2000 dated May 3, 2000, and to a new submission to the Treasury Board of Canada (828560), which allowed the programs to be improved to match the recommendations made. New memoranda of agreements were then signed by the agencies and the MRN.

Lastly, the first year of implementation has seen roughly 3,000 NPSI woodlot owners receive advisory services, and the restoration of over 640 hectares of private woodlands. It has also led to the development of new expertise in the area of silvicultural operations applied to forest stands damaged by ice storms, and the adaptation of programs to better respond to the needs expressed by the target clientele. Training activities will continue in coming years to support the work of forest engineers and the owners of damaged woodlots.

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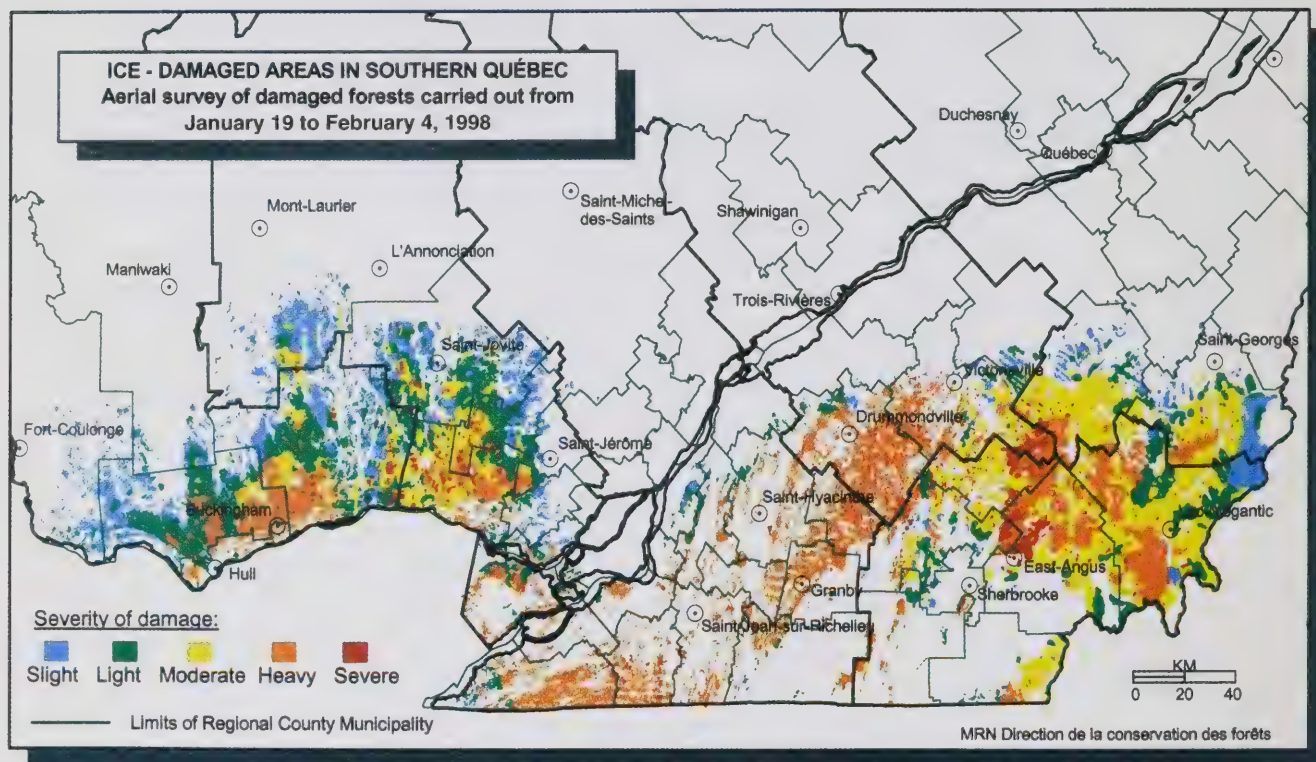
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Appendix 1

DAMAGE CAUSED TO FORESTS BY JANUARY 1998 ICE STORM



Appendix 2

LIST OF REGIONAL COUNTY MUNICIPALITIES AFFECTED BY THE ICE STORM OF JANUARY 5 TO 9, 1998

REGION 04

Francheville
Le Centre-de-la-Mauricie
Maskinongé

REGION 05

Le Granit
Le Haut-Saint-François
Coaticook
Memphrémagog
Sherbrooke
Le Val-Saint-François
Asbestos

REGION 06

Communauté urbaine
de Montréal

REGION 07

Communauté urbaine
de l'Outaouais
Papineau
Les Collines-de-l'Outaouais
La Vallée-de-la-Gatineau
Pontiac

REGION 12

Les Etchemins
Beauce-Sartigan
L'Amiante
Robert-Cliche
La Nouvelle-Beauce

REGION 13

Laval

REGION 14

Les Moulins
L'Assomption
D'Autray
Joliette
Montcalm

REGION 15

Deux-Montagnes
Mirabel
Thérèse-De-Blainville
La Rivière-du-Nord
Argenteuil
Les Pays-d'en-Haut
Les Laurentides
Antoine-Labelle

REGION 16

Brome-Missiquoi
Le Haut-Richelieu
Les Jardins-de-Napierville
Le Haut-Saint-Laurent
Beauharnois-Salaberry
Vaudreuil-Soulanges
Roussillon
Champlain
La Vallée-du-Richelieu
Rouville
La Haute-Yamaska
Acton
Les Maskoutains
Le Bas-Richelieu
Lajemmerais

REGION 17

L'Érable
Arthabaska
Drummond
Nicolet-Yamaska
Bécancour



Natural Resources Canada
Ressources naturelles Canada

Québec
Ministère des
Ressources naturelles

